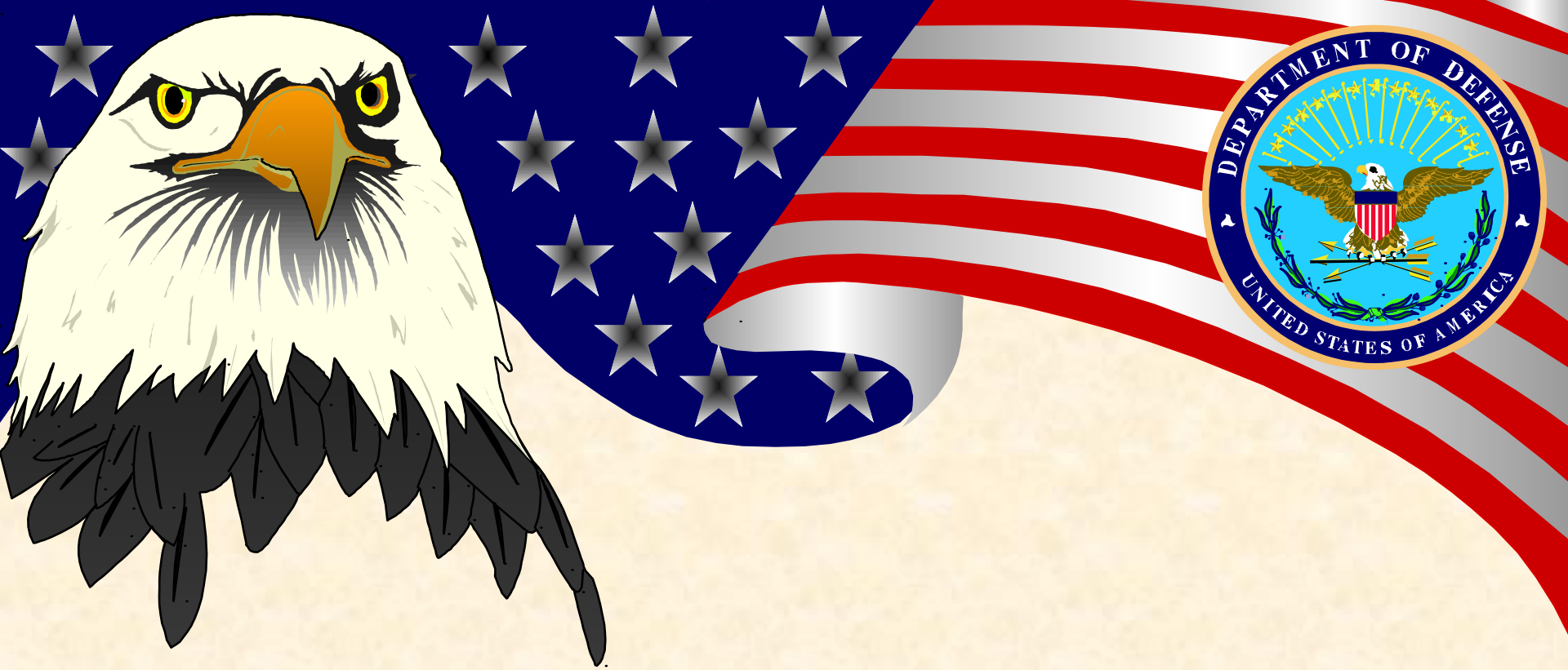
Buying Performance DAU/OSD Workshop



Maximizing Warfighter Support Through Performance-Based Logistics

3 October 2002

QDR Direction

- **Project and sustain the force with minimal footprint**
- **Implement performance-based logistics to compress the supply chains and improve readiness**
- **Reduce cycle times to industry standards**

Performance-Based Logistics

INDUSTRY/ORGANIC

Support Provider

Buys Performance As a Package
(Including Surge/Flexibility)

Weapon System Management

Warfighter/Force Provider

PA

PA

Ensure System is Sustained at optimum Level per PA

Provide continuous, Reliable, affordable Support per PA

Acquisition ***Sustainment*** ***Disposal***

Visibility into cost/risk decisions across life cycle

Migration to the PBL End State

FIELDED	CURRENT	FUTURE
F-18 C/D	F-18 E/F	JSF
DDG	LPD-17	DDX
BRADLEY	Stryker	FCS
• Transaction-based • Fractured Supply Chains • Random Failures • Batch Process orders • Limited Accountability	• Performance-Based Integrated Chains • Fleet Management • Integrated Systems • PM Accountability	• Capability-Based • Industrial Integration • Autonomic Logistics • End-to-End Solutions • Single-Line Accounting

	2000	2010
Response Time:	*16 days*	*5-8 days*	*1-5 days*

Performance-Based Logistics

Don’t our sons and daughters deserve it?

AGENDA

- 0800 – 0815 Welcome
- 0815 – 0830 Workshop Objectives/Administrative Remarks
- 0830 – 0845 Participant Introductions
- 0845 – 0945 Buying Performance: OSD Overview
- 0945 – 1000 Break
- 1000 – 1030 Army Brief – PBA Agreement/Lessons Learned
- 1030 – 1100 Navy Brief - PBA Agreement/Lessons Learned
- 1100 – 1130 USAF Brief - PBA Agreement/Lessons Learned
- 1130 – 1200 Working Lunch/Break
- 1200 – 1230 Industry Perspective
- 1230 – 1245 Breakout Session Ground Rules/Objectives
- 1245 – 1400 Breakout Sessions
- 1400 – 1415 Break
- 1415 – 1515 Breakout Session Report Back/Discussion
- 1515 – 1600 Wrap-up, Final Comments

Breakout - Group 1: Building Performance Agreements with Flexibility

Issue: Performance Agreements are statements of expectations of performance and corresponding required support between the Warfighter/Force Provider, Program Manager, and the Support Provider(s). As such, they contain explicit objectives, usually as metrics (i.e. mission-capable rate, availability, supply issue effectiveness) that must be met. The Performance Agreement provides a foundation for arranging support equivalent to expectations and available funding. However, over time, Warfighter/force provider priorities can and do change, driving changes in funding levels and corresponding capability to meet previously identified support objectives.

Building Block: Identify the major barriers (regulatory, statutory, cultural, or other) to providing needed flexibility in developing metric-based performance agreements, and the

Breakout Group 2: Developing Incentivized Performance Contracts

Issue: DoD experience, guidance, and policy regarding performance contracts is largely limited to services contracts for functions routinely performed in the private sector. The shift to performance-based contracting for major weapon system programs is significant, and requires a new approach to building and incentivizing contractor performance. The pertinent issues are properly defining the performance outcomes, selecting the outcomes and corresponding measures that are critical, then selecting appropriate incentives that promote a win-win result.

Building Block: Identify three or more notional performance-based contract incentives. Describe how these will incentivize the contractor towards meeting DoD performance outcomes (Availability, Readiness, Cost Savings). Show examples of benefits to contractor, and benefits to DoD.

Breakout Group 3: Assessing and Assuring Organic Performance

Issue: Developing, assessing, and holding a private support provider accountable for performance is facilitated by the existence of formal contracts. This legal relationship is not available with organic providers, yet organic support will continue to be vital, necessary, and legally required (by Title 10) as we evolve to performance-based support.

Building Block: What are the structural and business challenges to enabling organic providers to be parties to performance-based agreements? What regulatory/statutory changes are needed to better assess and promote organic accountability? What other approaches can be used to promote organic performance and accountability?

Breakout - Group 4: Identifying and Developing Appropriate Performance Metrics

Issue: As we shift to "buying performance", we are required to specify objective outcomes in terms of performance. However, we are constrained in terms of holding the support provider accountable correspondent to their control and performance of the end-to-end support process. In simple terms, we can't hold them responsible for total weapon system availability if they don't perform or control all functions that contribute to availability. Many Service logistics policies specify organic performance of organizational level maintenance and supply functions.

Building Block: Given these constraints, how do we develop appropriate performance metrics that maximize our opportunity to achieve our ideal performance outcomes? Is it possible for top-level metrics (e.g., Ao) to still be the focus of a performance agreement when such constraints as discussed above exist? If so, how would it be accomplished?

Breakout - Group 5: Transitioning Legacy Systems to Performance-based Support

Issue: Designing and developing performance metrics and performance agreements are much easier done with a “clean sheet” approach available on new acquisition programs. However, the majority of our logistics cost, infrastructure, and manpower is devoted to support of legacy systems, most of which will continue to be in use for years to come.

Building Block: Identify the major barriers to transitioning legacy systems to performance-based support, and corresponding regulatory, statutory, cultural, or financial changes needed to alleviate the difficulty in transition.

Purpose and Objectives

- **Purpose**
  - The workshop will address the implementation of Performance-based Logistics using Performance Agreements
- **Objectives**
  - Understand content, context, stakeholders, and application of performance agreements
  - Provide public and private perspectives on performance agreements, performance metrics, and contract incentives
  - Discuss real life examples of above
  - Explore and discuss the issues, barriers, and building blocks to solutions for “buying performance”

End Result

- Leverage the collective intellect of the group to gain new insights and perspectives on “buying performance”
- Transfer key learning to the acquisition community at large
- Build a knowledge base for executing and achieving performance-based support

This is not another Workshop event - we must take what is learned today and include the results, best practices, examples, in the knowledge-base of the Logistics Community of Practice

Administrivia

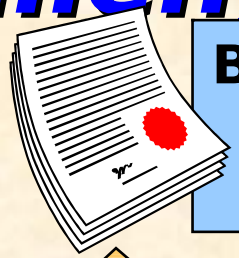
- **Intake:**
  - Morning Refreshments: Coffee, Bagels, Donuts
  - (Working) Lunch: Deli Sandwiches, Chips, Sodas
  - Give Money to Jill Garcia
- **Outgo:**
  - Restrooms
- **Breaks**
  - Per Agenda Schedule
- **Take Home CD**
  - White Paper on Performance Agreements
  - Product Support Guide
  - Other related material...

Buying Performance OSD Overview 3 October 2002

Current Life Cycle Challenges

$62B

High Weapon System Sustainment Cost



Business Case Analyses for Support Decisions Lack Verifying Data

New Logistics Processes, Policies, and Initiatives are Critical!!

PM Training Needed For Life Cycle Mgmt Role

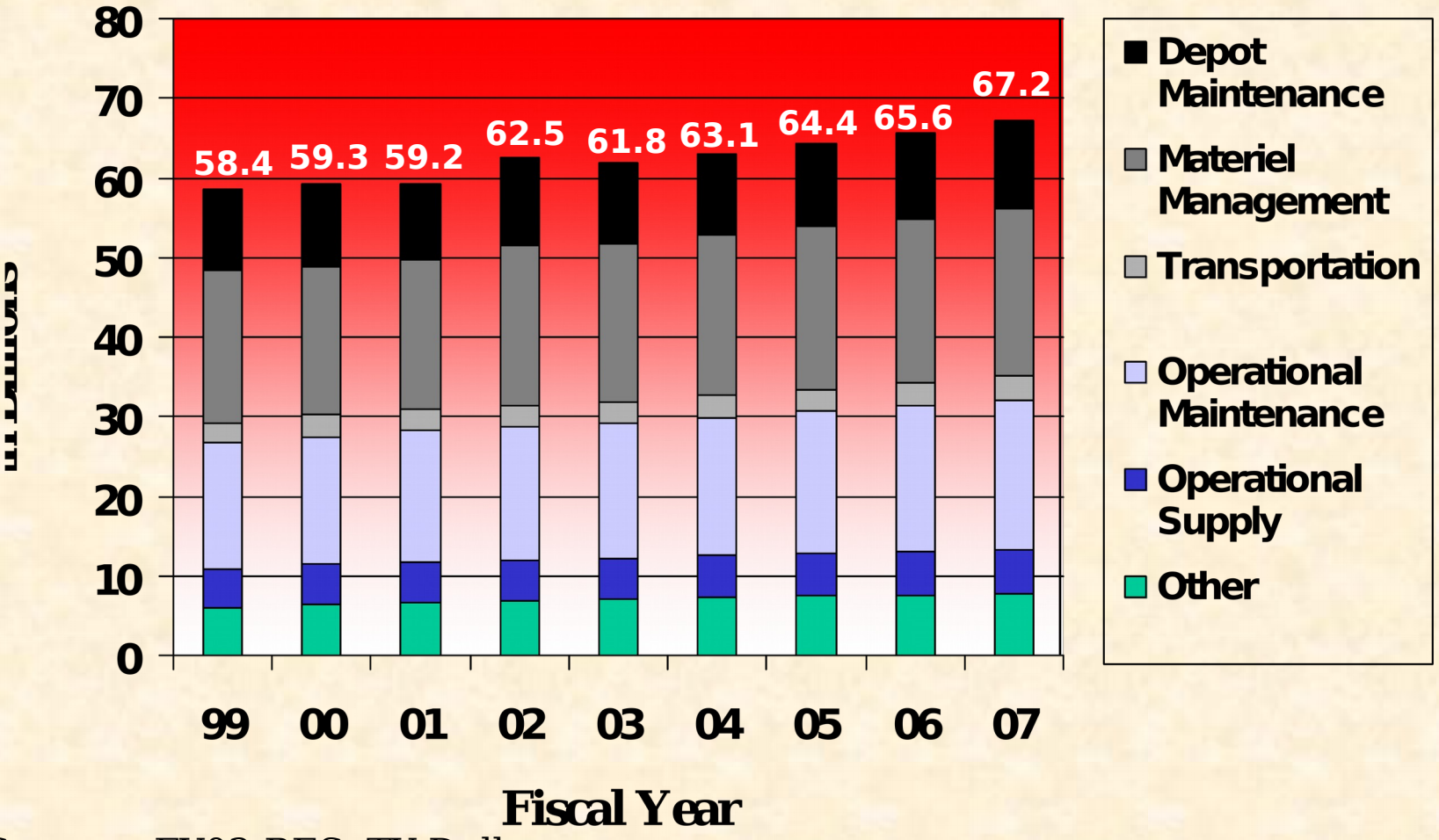
CWT=18 Days

Inefficient End-to-End Supply Support

Requirements Process that emphasizes performance – not sustainment

Policy needs to reflect New strategies

High Weapon System Sustainment Cost*



*Source: FY02 BES, TY Dollars

PMs Now Responsible for "Cradle to Grave" Management, but…

Limited Sustainment Expertise/Guidance

Shortfalls in Needed Training

Limited Oversight Mechanisms

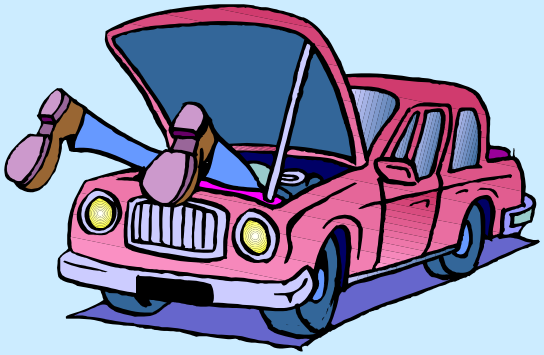
Few Precedents For Developing Support Strategies

Limited Financial Authority

Logistics Objectives

To Get From This…

Unreliable



Big Footprint

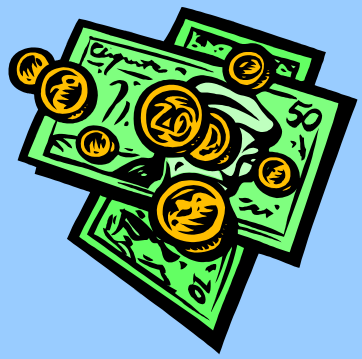
High Cost

To This…

Reliable

Reduced Footprint

Affordable



Requires a New STRUCTURE and STRATEGY for SUPPORT

STRUCTURE

Designate a Single Point of Accountability for the Weapon System from Cradle to Grave

Total Life Cycle Systems Management

TLCSM

STRATEGY

Buy Weapon System Support As an Integrated Package, vice Segmented Functions

Performance Based Logistics

PBL

TLCSM

The implementation, management, and oversight, by the designated Program Manager, of all activities Associated with the Acquisition, Development, Production, Fielding, Sustainment, and Disposal of a DoD Weapon system across its life cycle

Total Life Cycle Systems Management Desired End State

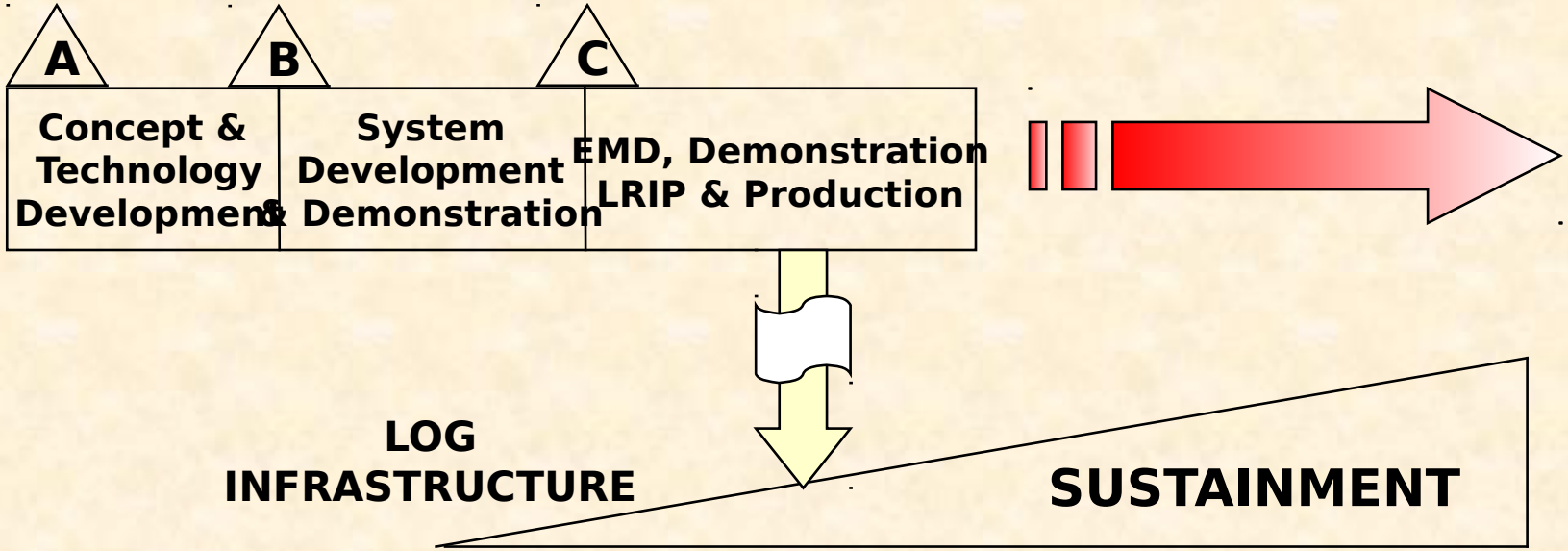
Weapon System Managers responsible for the overall management of the weapon system life cycle to include:

- **Timely acquisition of weapon systems meeting warfighter performance requirements**
- **Integration of sustainability and maintainability during acquisition process**
- **Weapon system sustainment to meet or exceed warfighter performance requirements at best value to DoD (and appropriate visibility)**

Program Management Focus

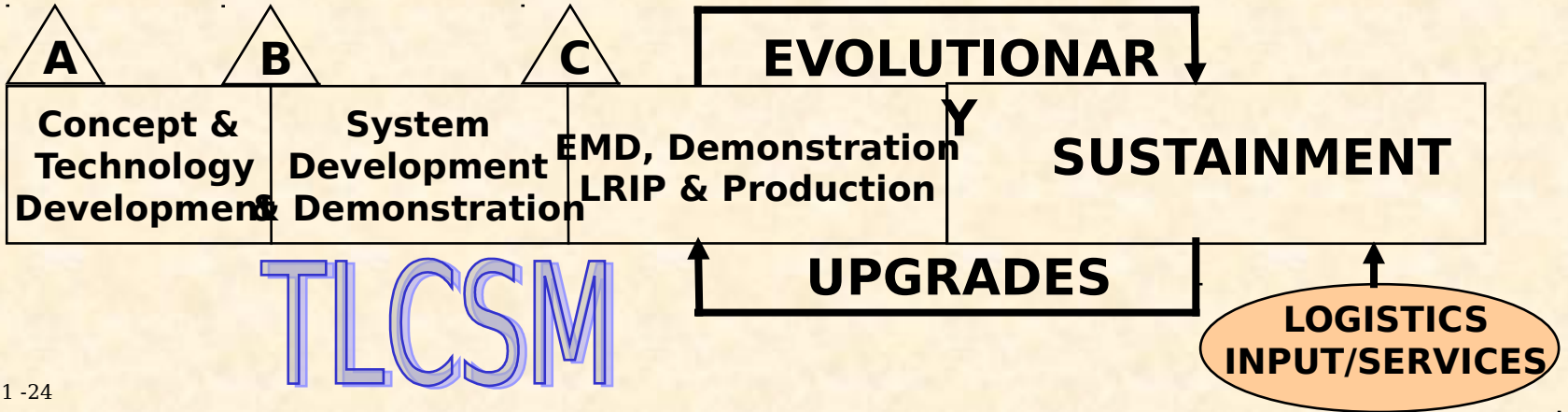
BEFORE

PM ROLE DIMINISHES



TODAY and into the FUTURE

PM ROLE CONTINUES



TLCSM

TLCSM Migration to End State

LEGACY	CURRENT	FUTURE
F-18 C/D	F-18 E/F	JSF
DDG	LPD-17	DDX
BRADLEY	Stryker	FCS
•Organic MX & Supply •Functional Support •BIT •Batch Process orders •Disparate Funding	•Initial PBL implementations •Partnering •Implementing CBM+ •Partial COTS; Partial Organic •Organic Retail Supply •Organic Mgmt Accounts	•Full PBL •Autonomic Logistics •Full COTS •Commercial Solutions •Single Line Accounting

CWT=12 days 2000 *CWT=3-5 days* 2010 *CWT=1-3 days*

TLCSM Recent Programs

H-60

- Government-Industry Partnership
- Increase parts availability rate from 73% to 90%
- "No cost" reliability improvements
- 50% increase MTBF on FLIR

F-117 Total System Performance Responsibility (TSPR)

- Support to 49th Fighter Wing rated Excelle
- All performance metrics met or exceeded
- Savings/cost avoidance to-date >$172M
- F-117 withstood test of transition and overseas deployment to 2 combat locations
  - In Kosovo, F-117 flew 1023 sorties with a mission capable rate of 86%

M-1 Abrams

- Estimated $400M Savings
- Partnership among PM, industry, and Army Materiel Command
- Reduction of O&S costs of 20% by FY 05
- Potential of $17B O&S cost reduction over the 30-year remaining life

Advanced Amphibious Assault Vehicle (AAAV) Life Cycle Support

- PM Life Cycle Oversight
- Estimated $240M Cost Avoidance over life cycle
- Embedded Training
- Competitive sourcing

Exploiting integrated industrial logistics chains to optimize equipment readiness

Performance-Based Logistics

A STRATEGY for weapon system product support that employs the purchase of support as an integrated, affordable performance package designed to optimize system readiness. It meets performance goals for a weapon system through a support structure based on long-term performance agreements with clear lines of authority and responsibility

Performance-Based Logistics

INDUSTRY/ORGANIC

Buys Performance As a Package
(Including Surge/Flexibility)

Weapon System Management

Support Provider

Warfighter/Force Provider

PA

PM

PA

Ensure System is Sustained at optimum Level per PA

Provide continuous, Reliable, affordable Support per PA

Acquisition

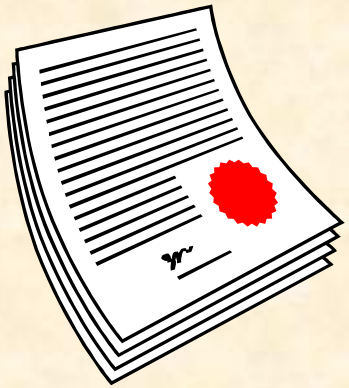
Sustainment

Disposal

Visibility into cost/risk decisions across life cycle

Performance Agreements

- Performance Agreements are a critical element in implementing PBL
  - Define Expectations of Force Provider
  - Define range of support requirements
  - Basis for negotiating support contracts
  - Ensure accountability in meeting Warfighter requirements
- Getting them right is critical!

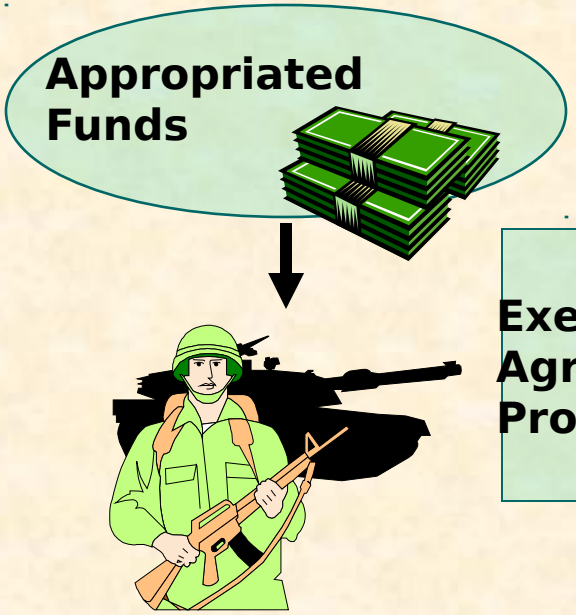


Characteristics

- Warfighter Focused – High Level Metrics
- Documents the negotiated range of support metrics necessary to meet operational objectives
  - **Expectations**
  - **Range of performance**
  - **Peace and War**
- Involves and is recognized by all appropriate stakeholders
  - **Service corporate structure**
  - **Logistics providers**
  - **Customers**
- Synchronizes allocated resources (corporate decision process) with service level expectations

Financial Process Strategy

Enabler vs. Disabler



Force Provider

- Operational commands define requirements
- Defines acceptable range of performance
- Advocates for required funds
  - through Service PPBS process
  - by platform
- Buys performance as a package
- Retain direct management of
  - Fuel
  - I and O maintenance
  - Base operations

Program Manager

- Provides performance as a "package" IAW Force Provider's requirements
- Develops Performance Agreements with Logistics support providers
- Estimates annual cost based on operational requirements
- Receives funds from Force Provider to execute PA within fiscal constraints

Performance Agreement Examples

F-117 TSPR Business Case Analysis

Incentive Fee Metrics

Baseline Performance Incentive Matrix (7% Pool)

SCORE	METRIC	NMCS NON-NSN ITEMS (%)	MICAP DELIVERY (HRS)	RSP KITS ND (%)	DEPOT DELIVERY (DAYS LATE)	DEPOT AIRCRAFT QUALITY (# DISC)	DELINQUENT DRS (#)	WST AVAILABLE (%)
	WEIGHT	25	15	15	15	15	10	5
	10	5.0 - below	72	96%	0 - 0.9	20	1 or Less	99.0%
	9	5.1 - 5.5	73 - 84	95%		21 - 25	2	98.5%
	8	5.6 - 5.0	85 - 86	94%	1.0 - 1.9	26 - 30	3	98.0%
	7	6.1 - 6.5	97 - 108	93%		31 - 35	4	97.5%
	6	6.6 - 7.0	109 - 120	92%	2.0 - 2.9	36 - 40	5	97.0%
	5	7.1 - 7.5	121 - 132	91%		41 - 45	6	96.5%
	4	7.6 - 8.0	133 - 144	90%	3.0 - 3.9	46 - 50	7	96.0%
	3	8.1 - 8.5	145 - 156	89%		51 - 55	8	95.5%
	2	8.6 - 9.0	157 - 168	88%	4.0 - 4.9	56 - 60	9	95.0%
	1	9.1 - 9.5	169 - 180	87%		61 - 65	10	94.5%
	0	9.6 & Up	181 & Up	86%	5.0 or More	65 & Up	11 & Up	94.0%

Incentive Fee based on 12 month rolling average scores

F-117 TSPR Business Case Analysis

FY00 Overall Metric Performance

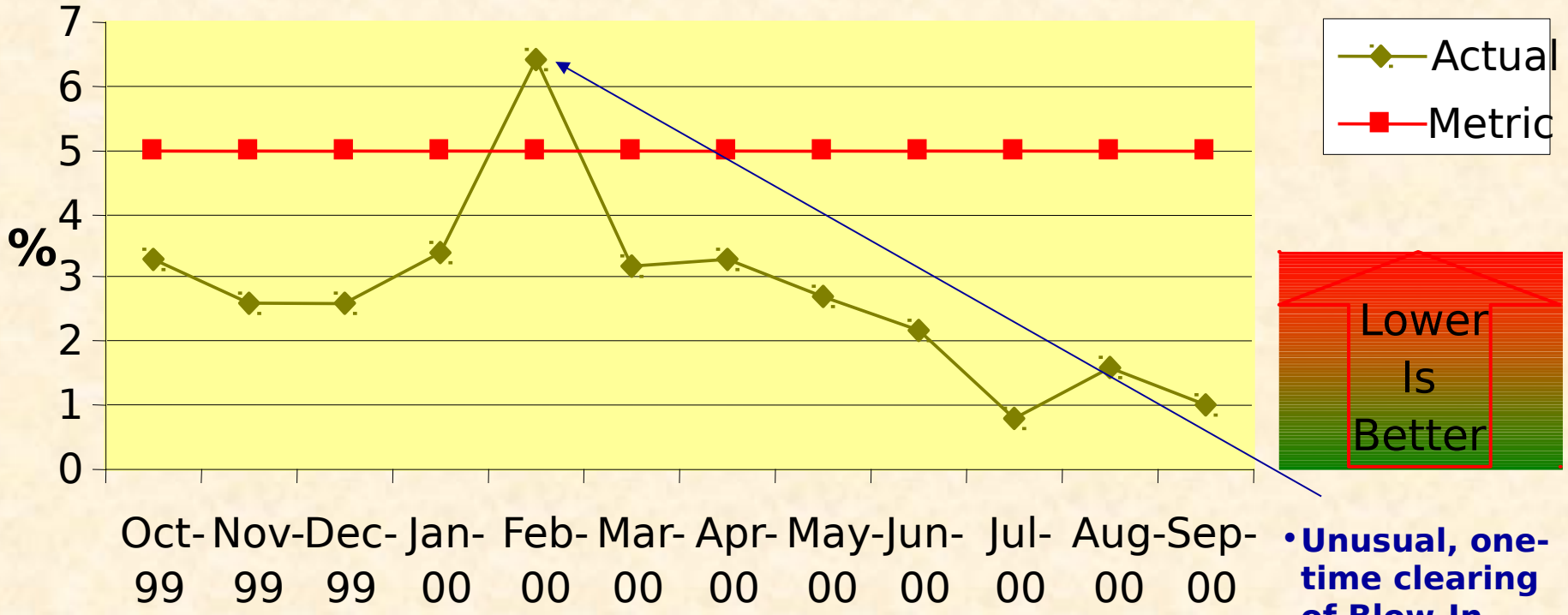
Standard	NMCS 5%	MICAP 72 Hrs	RSP 96%	DEPOT QUALITY 0-20	DEPOT DELIVERY 0	DELINQUENT DRs 1	WST Availability 99%
FY99 Avg	2.2	33.7	98.7	20	0	0	99.8
Oct-99	3.3	36.3	99.4	20	0	0	100.0
Nov-99	2.6	41.6	99.7	20	0	0	100.0
Dec-99	2.6	33	99.2	20	0	0	98.1
Jan-00	3.4	32.7	99.5	20	0	0	100.0
Feb-00	6.4	56.3	99.8	20	0	0	100.0
Mar-00	3.1	30.3	99.6	20	0	0	99.4
Apr-00	3.3	35.4	99.5	20	0	0	98.7
May-00	2.7	40.4	99.5	20	0	0	98.6
Jun-00	2.2	34.8	97.5	20	0	0	100.0
Jul-00	0.8	33.5	99.4	20	0	0	98.4
Aug-00	1.6	32.8	99.7	20	0	0	100.0
Sep-00	1	33.5	99.7	20	0	0	N/A
12 Mo Avg	2.9	35.9	99.2	20	0	0	99.5

METRIC PERFORMANCE AT 100%*

** Metric is based on a moving average*

F-117 TSPR Business Case Analysis FY00 Metric Performance

Not Mission Capable Supply (NMCS)



NMCS:

- **The % of aircraft not mission capable due to lack of spares**
- **5% or less rates a perfect score**

- **Unusual, one-time clearing of Blow-In-Door discrepancies**

Army TOW-ITAS

- **Key Metric: Contractor will maintain adequate stock of repair parts sufficient to maintain a 90% readiness rate**
- **Other Areas of Agreement**
  - **Contractor Deployment**
  - **Contractor Transportation Requirements**
  - **Contractor Medical Treatment**

Tube-Launched, Optically-Tracked, Wire-Guided (TOW) Missile: Improved Target Acquisition Sight (ITAS)

"(TOW ITAS CLS) Is Almost Too Sweet to Eat"
BG(P) Honore, AC,
Infantry Center
24 Jun 99

CLS Successful

- To-date 98% OR Rate (Contractor Performance) On TOW ITAS Items
- Contract Metrics Working Well

Forward Repair Activity (FRA) Well Received by Units

- Valuable Asset
- Deployable

Other Units Want FRA Collocated

Forward Support Battalion/ FRA at National Training Center

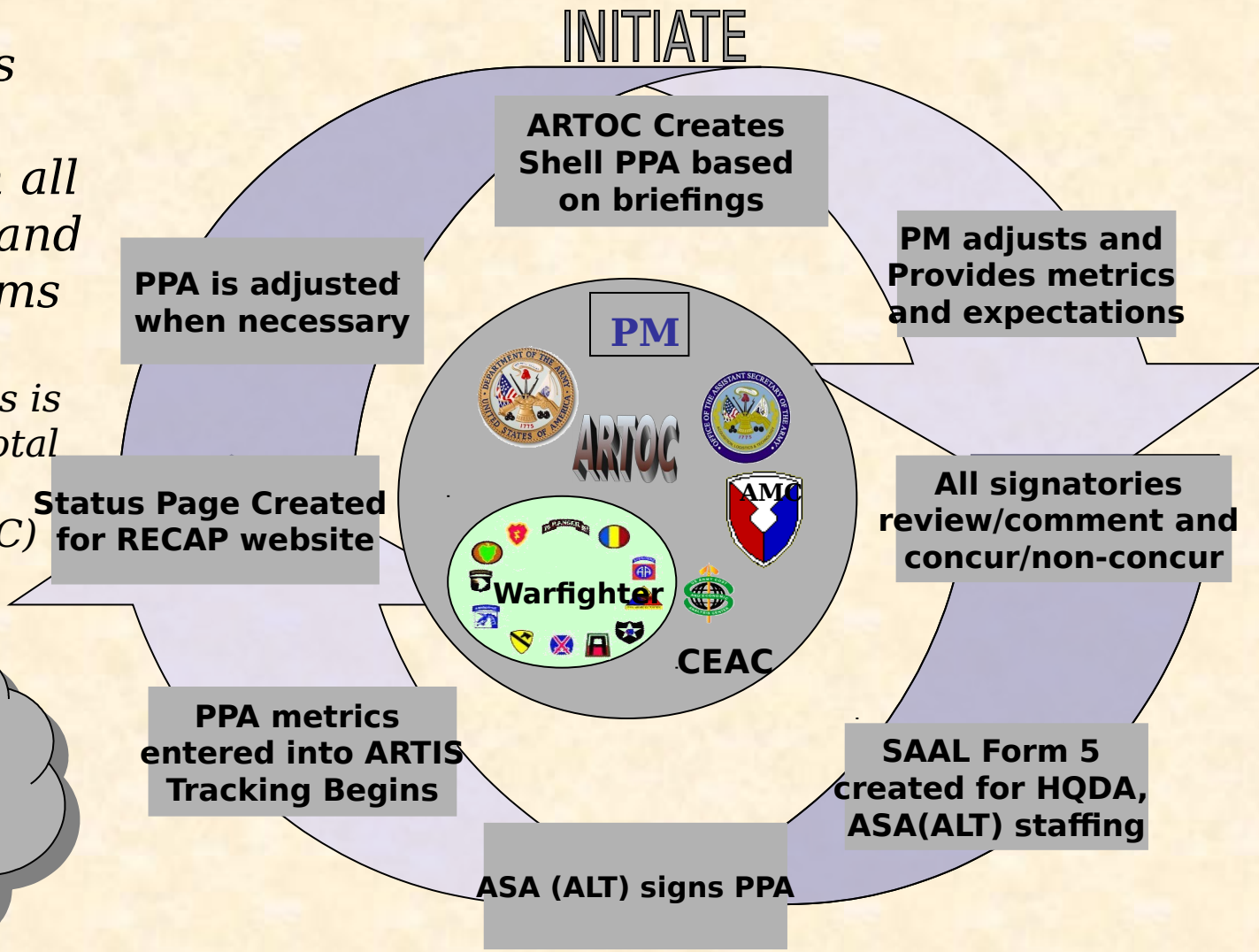
Army CH-47 Helicopter

- Cost per operating hour
- Mean Time Between Removals
- Pre-Flight abort rate
- In Flight abort rate
- Maintenance Test Flight Hours
- O&S cost reduction (target 25%)
- Mean Time Between Depot Level Repair (25% improvement goal)

Army PBA Process

Army Requires Performance Agreements with all Recapitalization and OSD Pilot Systems

**oversight of process is done by the Army Total Ownership Cost Directorate (ARTOC)*



ARTOC Facilitates Coordination and Provides Lessons Learned Between all Players

Army PBA Process

execution

METRICS CAN BE:

- Quantifiable
- Realistic
- Measurable

Top Level metrics

DEVELOPMENT SHOULD FOCUS ON:

- Technology Leverage (ie. AIT Devices)
- Accuracy
- Timeliness
- Limited Manual Input
- Component Serial # Level Visibility
- Variables Isolated

EXAMPLES

METRICS	HOW TO PROVE SUCCESS
Cost Reduction	MTTR
	Fuel Efficiency
	Disposal Cost
	Weight
	Transportation Costs
	#of Parts
	Training Improvements
	Storage / Surcharge Reduction
	Obsolescence
	Lines of Code
	Software Support
Lethality	
Capability	Speed
	C3I
	Fuel Efficiency
Readiness	MTBF / R
	MTTR
	Obsolescence
	#of Parts
	Storage / Surcharge Reduction
	NMC-S
	NMC-M
	Software Support
Environmental	Weight
	Materials
	Disposal Cost
	Reduction in Safety Incidents

Auxiliary Power Unit Partnership

- Supports C-2, F/A-18, E-2 and C-130.

Title 10 Compliant!

- Public / Private Partnership
  - Honeywell... Program Management
  - NADEP Cherry Point... Sub-contract performing touch labor

Buying Reliability and Service Not Piece Parts

- 25% - 45% Reliability Improvement

- Delivery Guarantees... 2 Days (IPG 1)

- Obsolescence Management

- Surge Capability...120% of Annual FH's

- Product Support Engineering

Results

- "G" condition from 252 to 0
- Backorders from 125 to 25
- 822 requisitions rec'd (FY-02) 98% shipped same day (up from 60% prior to PBL)
- 92% delivered within contract metric (4 days worldwide)
- Reliability increasing
- CWT reduced from 35 days to 5 days

NAVICP Honeywell

PLUS CAT Logistics

On-Line Shipping & Inv Mgmt

Other Programs & Sub-Systems…

- Navy T-45
  - % Ready for Training
  - Material Condition Evaluation
- M1A2 Enhancement Program
  - Operational Readiness Rate
  - Tank cost per mile
- LANTIRN
  - MC rate: 85%, to 87% year 2

Key Issues

- Stakeholders: Roles and Responsibilities
- Organic Accountability: MOA vs. Contract
- Evolutionary Acquisition: shifting baseline, multiple performance blocks
- Financial: Poor WS cost visibility
- Metrics: Need flexibility
- Legacy Systems: Not starting with a clean sheet – existing support infrastructure